

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Application No.: 10/038,206

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BOX NON-FEE AMENDMENT

Filed:

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Title:

SYSTEMS FOR GENERATING AND ANALYZING

STIMULUS-RESPONSE OUTPUT SIGNAL MATRICES

TECH CENTER 1600/2900

## SECOND PRELIMINARY AMENDMENT UNDER 37 C.F.R. § 1.115

Seattle, Washington 98101

October 31, 2002

## TO THE COMMISSIONER FOR PATENTS:

## In the Claims:

Please amend Claims 59, 67 and 68. All pending claims thus presented for examination are as follows.

- 38. A method for analyzing the effects of subjecting a living thing to a stimulus comprising:
- (a) detecting physical signals from a plurality of units ordered in a probe matrix by contacting the probe matrix with gene transcripts or cDNA derived from said living thing subjected to said stimulus, wherein each unit of the probe matrix confines a probe comprising a different pre-determined sequence of nucleotides, and wherein said sequence is hybridizable with an identified gene of said living thing, or with a transcript of the gene, or with cDNA derived from the gene,
  - (b) transducing the physical signals into electrical output signals,
- (c) storing in digital form each electrical output signal in an output signal data structure, wherein each stored digital signal is associated (i) with said stimulus and (ii) with the identity of said identified gene, and

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